

IN THE CLAIMS

Claims 1-45 are pending in this application. Claims 1, 23, 38 and 40 are independent.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (CURRENTLY AMENDED): An electronic device comprising:

a mechanical driving member which performs mechanical operations;

a first system controller which controls the overall operation of said electronic device including said mechanical driving member; and

a second system controller, which controls a part of the device including said mechanical driving member, operating independently of said first system controller,

wherein in accordance with turning on of power supply to said first system controller, said second system controller ~~controls~~ begins to control said mechanical driving member in parallel to a control preparatory operation ~~for control on the overall device performed by~~ of said first system controller which begins in accordance with the turning on of the power supply to said first system controller ~~regardless of the control of said mechanical driving member by said second system controller , and~~

wherein said second system controller does not require a control signal from said first system controller to begin the control of said mechanical driving member.

2 (ORIGINAL): The electronic device according to claim 1, wherein said first system controller is a central processing unit, and wherein in said control preparatory operation,

immediately after turning on of the power supply to said first system controller, said first system controller starts an OS (Operation System), and operates a control application program.

3 (ORIGINAL): The electronic device according to claim 1, wherein if the completion of the control preparatory operation has not been notified within a predetermined period from said first system controller since the turning on of the power supply to said first system controller, said second system controller returns said first system controller to a status before the power supply was turned on to said first system controller, and turns off the power supply to said first system controller.

4 (PREVIOUSLY PRESENTED): The electronic device according to claim 3, wherein said predetermined period is longer than a period from turning on of the power supply to said first system controller to normal completion of the control preparatory operation by said first system controller.

5 (ORIGINAL): The electronic device according to claim 1, further comprising an operation unit which inputs an operation instruction to the electronic device, wherein if no operation instruction has been inputted by said operation unit within a predetermined period, said second system controller returns said mechanical driving member to a status before the power supply was turned on to said first system controller, and turns off the power supply to said first system controller.

6 (ORIGINAL): The electronic device according to claim 1, wherein said second system controller is a central processing unit and is always powered.

7 (ORIGINAL): The electronic device according to claim 6, wherein said second system controller controls the power supply to said first system controller.

8 (ORIGINAL): The electronic device according to claim 1, wherein said second system controller is a hard-wired logic circuit.

9 (ORIGINAL): The electronic device according to claim 1, wherein said first system controller has a processing speed faster than that of said second system controller.

10 (ORIGINAL): The electronic device according to claim 1, wherein electric consumption of said second system controller is lower than that of said first system controller.

11 (ORIGINAL): The electronic device according to claim 1, wherein the electronic device is a digital still camera.

12 (ORIGINAL): The electronic device according to claim 11, wherein said mechanical driving member includes a lens barrier which protects the optical system of the digital still camera.

13 (ORIGINAL): The electronic device according to claim 12, wherein said second system controller opens said lens barrier in parallel to the control preparatory operation on the overall device by said first system controller.

14 (ORIGINAL): The electronic device according to claim 11, wherein said mechanical driving member includes a collapsible barrel of the digital still camera.

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15 (ORIGINAL): The electronic device according to claim 14, wherein said second system controller extends said collapsible barrel in parallel to the control preparatory operation on the overall device by said first system controller.

16 (ORIGINAL): The electronic device according to claim 1, wherein the electronic device has an in-use status and a non-use status different from each other, and wherein said second system controller controls said mechanical driving member in parallel to the control preparatory operation on the overall device by said first system controller, so as to cause the device to enter the in-use status from the non-use status.

17 (ORIGINAL): The electronic device according to claim 16, wherein the electronic device is a digital still camera and comprises an image sensing lens as said mechanical driving member.

18 (ORIGINAL): The electronic device according to claim 17, wherein when the device is not used, the device is in an image sensing disabled status in which said image sensing lens is collapsed into a camera main body.

19 (ORIGINAL): The electronic device according to claim 17, wherein when the device is used, the device is in an image sensing enabled status in which said image sensing lens is extended from a camera main body to a wide-angle side position.

20 (ORIGINAL): The electronic device according to claim 17, wherein said mechanical driving member includes a lens barrier which protects said image sensing lens.

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21 (ORIGINAL): The electronic device according to claim 20, wherein when the device is used, the device is in an image sensing enabled status in which the lens barrier which protects said image sensing lens is opened.

22 (ORIGINAL): The electronic device according to claim 20, wherein when the device is not used, the device is in a image sensing disabled status in which the lens barrier which protects said image sensing lens is closed.

23 (CURRENTLY AMENDED): A method for controlling an electronic device having a mechanical driving member which performs mechanical operations and a system controller which controls the overall operation of said electronic device including said mechanical driving member, said method comprising:

~~a preparatory step of performing a control preparatory operation for control on the overall operation of said electronic device by said system controller, regardless of the mechanical operations of the mechanical driving member,~~ in accordance with turning on of power supply to said system controller; and

~~a mechanical drive step of controlling said mechanical driving member in parallel to said preparatory step~~ said performing step by a separate system controller in accordance with turning on of power supply to said system controller,

wherein said controlling step does not require a control signal from said system controller to begin the control of said mechanical driving member.

24 (ORIGINAL): The method according to claim 23, wherein said system controller is a central processing unit, and wherein at said preparatory step, an OS (Operating System) is started

and a control application program is operated after turning on of the power supply to said system controller.

25 (ORIGINAL): The method according to claim 23, further comprising:

a step of returning said mechanical driving member to a status before the power supply was turned on to said system controller if the completion of the control preparatory operation has not been notified from said system controller within a predetermined period since turning on of power supply to said system controller; and

a step of turning off the power supply to said system controller.

26 (PREVIOUSLY PRESENTED): The method according to claim 25, wherein said predetermined period is longer than a period from turning on of power supply to said system controller to normal completion of the control preparatory operation by said system controller.

27 (ORIGINAL): The method according to claim 23, wherein the electronic device further comprises an operation unit which inputs an operation instruction to the electronic device, the method further comprising:

a step of returning said mechanical driving member to a status before the power supply was turned on to said system controller if no operation instruction has been inputted within a predetermined period; and

a step of turning off the power supply to said system controller.

28 (ORIGINAL): The method according to claim 23, wherein the electronic device is a digital still camera.

29(ORIGINAL): The method according to claim 28, wherein said mechanical driving member includes a lens barrier which protects an optical system of the digital still camera, and wherein at said mechanical drive step, said lens barrier is opened.

30 (ORIGINAL): The method according to claim 28, wherein said mechanical driving member includes a collapsible barrel of the digital still camera, and wherein at said mechanical drive step, said collapsible barrel is extended.

31 (ORIGINAL): The method according to claim 23, wherein the electronic device has an in-use status and a non-use status different from each other, and wherein at said mechanical drive step, control to cause the device to enter the in-use status from the non-use status is performed.

32 (ORIGINAL): The method according to claim 31, wherein the electronic device is a digital still camera, and comprises an image sensing lens as said mechanical driving member.

33 (ORIGINAL): The method according to claim 32, wherein when the electronic device is not used, the device is in the non-use status in which said image sensing lens is collapsed in a camera main body.

34 (ORIGINAL): The method according to claim 32, wherein when the electronic device is used, the device is in the in-use status in which said image sensing lens is extended from a camera main body to a wide-angle side position.

35 (ORIGINAL): The method according to claim 32, wherein said mechanical driving member includes a lens barrier which protects said image sensing lens.

36 (ORIGINAL): The method according to claim 35, wherein when the electronic device is used, the device is in the in-use status in which the lens barrier which protects said image sensing lens is opened.

37 (ORIGINAL): The method according to claim 35, wherein when the electronic device is not used, the device is in the non-use status in which the lens barrier which protects said image sensing lens is closed.

38 (CURRENTLY AMENDED): A computer program product comprising a computer usable medium having computer readable program code means embodied in said medium for controlling an electronic device having a mechanical driving member which performs mechanical operations and a system controller which controls the overall operation of said electronic device including said mechanical driving member, said product including:

first computer readable program code means ~~of preparatory step~~ for performing a control preparatory operation for control ~~on~~ the overall operation of said electronic device by said system controller, ~~regardless of the mechanical operations of the mechanical driving member~~, in accordance with turning on of power supply to said system controller; and

second computer readable program code means ~~of mechanical drive step~~ for controlling said mechanical driving member in parallel to ~~said preparatory step~~ said performing step by a separate system controller in accordance with turning on of power supply to said system controller,

wherein said controlling step does not require a control signal from said system controller to begin the control of said mechanical driving member.

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39 (ORIGINAL): The computer program product according to claim 38, wherein the electronic device has an in-use status and a non-use status different from each other, and wherein at said mechanical drive step, control to cause the device to enter the in-use status from the non-use status is performed.

40 (CURRENTLY AMENDED): An image sensing apparatus comprising:

image sensing means for converting an optical image of an object to electric signals and outputting the electric signals;

mechanical drive means for driving a mechanical component of the image sensing apparatus;

signal processing means for generating image signals by processing the electric signals outputted from said image sensing means;

file system means for storing the image data generated by said signal processing means to a storage medium; and

control means for simultaneously starting initializations of said mechanical drive means, said signal processing means, and said file system means in response to turning on of the image sensing apparatus,

wherein ~~operations of each of~~ the initializations of said mechanical drive means, said signal processing means, and said file system means ~~do not depend on~~ does not require a control signal from each other.

41 (ORIGINAL): The image sensing apparatus according to claim 40, wherein initialization of said file system means controlled by said control means includes an operation of obtaining information on said storage medium from said storage medium.

42 (ORIGINAL): The image sensing apparatus according to claim 41, wherein the information in said storage medium includes at least one of storage medium type, entire capacity of the storage medium, capacity in current use, current available capacity, the file format, current latest file information.

43 (PREVIOUSLY PRESENTED): The image sensing apparatus according to claim 40, wherein said mechanical drive means includes at least either of a lens drive unit or an exposure drive unit.

44 (ORIGINAL): The image sensing apparatus according to claim 40, wherein said control means adopts by a real time multi task monitoring system for performing various initialization operation.

45 (ORIGINAL): The image sensing apparatus according to claim 41, wherein said control means simultaneously performs the initialization by performing data transmission from said storage medium by said file system means at the initialization by direct memory access (DMA), and performing initialization of said mechanical drive means and signal processing means during idle time of the DMA.